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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/599,761	10/06/2006	Petri Jokela	P19221-US1	3827
27045	7590	05/11/2010		
ERICSSON INC. 6300 LEGACY DRIVE M/S EVR 1-C-11 PLANO, TX 75024			EXAMINER VAUGHAN, MICHAEL R	
			ART UNIT 2431	PAPER NUMBER
			NOTIFICATION DATE 05/11/2010	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### Office Action Summary

**Application No.**

10/599,761

**Applicant(s)**

JOKELA ET AL.

**Examiner**

MICHAEL R. VAUGHAN

**Art Unit**

2431

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 March 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 and 31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-9, 11-13, 15-23 and 31 is/are rejected.
- 7) ☒ Claim(s) 5, 10 and 14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB06)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ ~~Notice of Informal Patent Application~~
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

The instant application having Application No. 10/599,791 is presented for examination by the examiner. Claims 1-23 and 31 are pending.

### ***Response to Arguments***

The affidavit filed on 3/9/10 under 37 CFR 1.131 is sufficient to overcome the Eggert reference.

Applicant's arguments, see page 7-9, filed 3/9/10, with respect to the rejection(s) of claim(s) 1-23 and 31 under 35 USC 103 have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of previously cited references "End-Host Mobility and Multi-homing with Host Identity Protocol" and "Integrating Security, Mobility, and Multi-homing in a HIP way" (both cited on PTO-892 filed 10/22/08).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 6-9, 11-13, 15-20, 22, 23, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over non-patent literature, "End-Host Mobility and Multi-homing with Host Identity Protocol" published on June 17, 2003 by Nikander et al., hereinafter **Nikander** in view of "Integrating Security, Mobility, and Multi-homing in a HIP way" published in February 2003 by Wall et al., hereinafter **Wall**.

As per claim 1, Nikander teaches a method performed at a gateway node [forwarding agent] forming a gateway between a first environment and a second environment, of using the Host Identity Protocol (HIP) to at least partially secure communications between a first host operating in the first network environment and a second, HIP-enabled, host operating in the second network environment (introduction, section 1), the method comprising:

- associating an identifier [IP address] at the gateway node [forwarding agent] (leases an IP address; page 10, section 4.4.1),
- storing the identifier at the gateway node (page 10, section 4.4);
- sending the identifier to the first host [leased address is sent to requester; page 10, section 4.4.1];
- using the stored identifier to negotiate a secure HIP connection to the second host [IP addresses are used in HIP exchange; page 8, section 4]

Nikander is silent in explicitly teaching receiving a session initiation messages from the first host, where a source address of the session initiation message comprises the identifier and where the session initiation message indicates that a destination of the

session initiation message is the second host. In Nikander a triangular routing scheme is derived with the use of the forwarding agent. As such, the initiator contacts the responder host directly (figure 2). However, Wall teaches that a forwarding agent may also be the access router for an initiator host (section 5.3). This same access router is the entity responsible for assigning addresses to the host. Therefore if the access router and the forwarding agent are one and the same, it would receive a session initiation messages from the first host, where a source address of the session initiation message comprises the identifier and where the session initiation message indicates that a destination of the session initiation message is the second host any time the host wants to initiate communication with another host. The access router is responsible for the sending messages from the host to the next hop in the communication path. As Nikander teaches, the host uses the IP addressed leased from the forwarding agent, as the source address to which the responding host replies back. The destination address is obviously belongs to the intended target of the communication. Therefore the combination of Nikander and Wall meets the claim's requirements because a node's access router is responsible for receiving and routing a session initiation message from the sender to the recipient. Using an access router as the forwarding agent produces a predictable result. The claim is obvious because one of ordinary skill in the art can combine known methods which produce predictable results.

As per claim 2, Eggert teaches the identifier is generated at the gateway node (page 12, section 5.1).

As per claim 3, Eggert teaches the identifier is generated in response to the sending of a context activation request from the first host to the gateway node [FAQ; page 12).

As per claim 6, Nikander teaches the first host is HIP enabled and the secure HIP connection is negotiated between the first and second hosts (page 8, section 4).

As per claim 7, Nikander teaches the identifier is of the same length as an address in the addressing scheme used by the first host for communication with the gateway node [identifier is the IP address, thus same length; page 10, section 4.4].

As per claim 8, Nikander teaches the IP addressing scheme is used and the identifier is used as the source IP address in the session initiation message (page 10, section 4.4 and page 12, section 5.1).

As per claim 9, Nikander is silent in explicitly teaching the identifier is a look-up identifier associated with a HIP identity tag generated for and associated with the first host, allowing the HIP identity tag for the first host to be retrieved at the gateway node using the look-up identifier. Wall teaches this limitation as host identifiers are linked to IPv6 addresses in order to handle IPv6 addresses transparently (section 4.5). The claim is obvious because one of ordinary skill in the art can combine known methods which produce predictable results. Mapping the IPv6 addresses [identifiers] to the HIP identifiers provides transparent functionality of HIP over IPv6.

As per claim 11, Nikander teaches the HIP identity tag is included in a HIP header during negotiation of the HIP connection between the gateway and the second host [host-ID is in FAQ; 5.1.3].

As per claim 12, Nikander teaches the HIP identity tag is a Host Identity Tag (HIT) or a Local Scope Identifier (LSI) (3.1).

As per claim 13, Nikander teaches the HIP identity tag is generated from a key pair (section 1, generated from public keys).

As per claim 15, Nikander teaches the identifier is in the form of a IP address (4.4).

As per claim 16, Nikander teaches the first network environment is a mobile network environment (section 1, Introduction).

As per claims 17 and 18, Nikander and Wall do not explicitly name what kind of wireless network is present. However, Official Notice is taken that UMTS and 3G networks are a well known and established type of wireless network. The claim would have been obvious because one of ordinary skill in the art could have implemented HIP in any of the well known types of wireless networks.

As per claim 19, Nikander teaches the second network environment is an Internet network environment (IP; section 1).

As per claim 20, Nikander teaches the gateway node provides the functionality of a HIP proxy (forwarding agent; section 4.4).

As per claim 22, Nikander teaches replacing the identifier with an address associated with the gateway node as the source address in a subsequent message sent to the second host [renewing an address lease; section 5.2].

As per claims 23 and 31, being of equivalent scope are rejected for the same reasons as claim 1.

Claims 4 and 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nikander and Wall as applied to claim 3 above, and further in view of USP 6,061,346 to Nordman.

As per claims 4, Nikander and Wall fail to teach the context activation request is a Packet Data Protocol (PDP) context activation request to activate a PDP context, and the identifier is used as the PDP address in the PDP context. Nordman teaches this limitations as an identifier of a host is used as a PDP in address in the PDP context activation request (col. 9, lines 24-37). Nikander and Wall implement there system on IP networks. PDP is used in a wireless extension of the Internet's IP network. One of ordinary skill in the art can combine known methods which produce predictable results. The combined system of Nikander and Wall in the general IP network can predictably be extended to wireless hosts accessing the IP network by their IP identifier.

As per claim 21, Nikander and Wall are silent in disclosing the gateway node is a GGSN. Nordman teaches the gateway node is a GGSN (col. 7, lines 8-10). Examiner supplies the same rationale as recited in the rejection of claim 4 to combine the teachings of Nikander, Wall, and Nordman.



***Allowable Subject Matter***

Claims 5, 10, and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and all intervening claims.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL R. VAUGHAN whose telephone number is (571)270-7316. The examiner can normally be reached on Monday - Thursday, 7:30am - 5:00pm, EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Korzuch can be reached on 571-272-7589. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

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USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. R. V./

Examiner, Art Unit 2431

/William R. Korzuch/

Supervisory Patent Examiner, Art Unit 2431